BACKGROUND

The Diageo North America, Inc. (Diageo) facility, located in Relay, Baltimore County, blends, brews, and packages distilled spirits, Progressive Adult Beverages (PABs), and beer for consumer use. A variety of beverage materials are processed including grain neutral spirits, rums, whiskeys, and beer. Materials are received by truck and rail and stored in tanks. Processing steps include filtration, blending with other ingredients, and cutting with de-mineralized water. Finished product streams are packaged into bottles, cans, and other containers for distribution in commerce. Some products are shipped in bulk form to other sites using barrels, totes, railcars, and tank trucks. Most processing activities occur inside one of several buildings. The facility also has aging operations. Outside activities include temporary storage of empty oak barrels used in aging and several larger product storage tanks.

Diageo Global Supply has operated the Relay plant since December 21, 2001. The primary SIC code for this facility is 2085, with a secondary SIC code of 2082.

The following table summarizes the actual emissions from Diageo's Relay facility based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO _x (TPY)	SO _x (TPY)	PM ₁₀ (TPY)	CO (TPY)	VOC (TPY)	Total HAP (TPY)
2012	2.11	0.02	0.04	1.77	277	0
2013	1.37	0.01	0.03	1.16	94	0
2014	0.96	0.01	0.02	0.80	12.1	0
2015	0.71	0.07	0.02	0.57	9.42	0
2016	0.81	0.02	0.02	0.67	6.25	0

The major source threshold for triggering Title V permitting requirements in Baltimore County is 25 tons per year of NOx or VOCs and 100 tons per year for any other criteria pollutant. Since the actual and potential VOC emissions from the facility are greater than the major source threshold, Diageo is required to obtain a Title V-Part 70 Operating Permit under COMAR 26.11.03.01.

The Department received a Part 70 permit renewal application for the facility on November 1, 2016 including three non-confidential copies and one digital CD of application with marked confidential in some parts of the attachments. On November 3, 2016, Diageo was asked to submit non-confidential copies and a brief discussion of CAM plan if applicable or why CAM plan does not apply. An updated T5 renewal

application was received November 21, 2016. After an administrative completeness review, the Department informed Diageo on November 30, 2016 that the application was deemed to be administratively complete.

Since the last issuance of Title V operating permit, the Department has issued to the facility the following Permits to Construct:

- Addition of one carbon filtration system consisting of nine 2,100 gallon sealed carbon wood filtration tanks and one 8,000 gallon rinse water tank in Building 11 (ARMA Registration No. 005-0146- 9-1440); and relocation of six 4,300 gallon storage tanks from Building D (Spring Gardens) to Building 11 (3 tanks) and to the ECF Building (3 tanks) (ARMA Registration No. 005-0146- 8-0307 issued March 8, 2013.
- Modification of the existing loading station outside of M Warehouse and Building 17 by adding piping lines to allow for additional rail and truck loading. (ARMA Registration No. 005-0146-6-3137 issued December 18, 2015).
- Modification of the existing product transfer systems associated with Building 16, 17, and Tank Farm including piping changes, relocation of flow panels, and implementation of a proprietary blending process (ARMA registration No. 005-0146-9-1525 issued September 2, 2016).
- 4. Installation of one Bohnert spirits handling system with maximum capacity of 3,180 gal/hr in Building 16. (ARMA registration No. 005-0146-8-0418 issued September 20, 2016).
- 5. Installation of one (1) Progressive Alcoholic Beverage (PAB)/Beer Packaging System, including one (1) bottle/canning system, and one (1) Carbo Cooler system in Building 49, relocation of one existing plate and frame filter to Building 50, and modification of the existing 13 tanks (in Building 11, 50, and 17) to support the PAB/Beer production. (ARMA registration No. 005-0146-8-0433 issued August 29, 2017).

Diageo's Relay facility reduced barrel aging operations, which were the major VOC emission units of the facility. In accordance with the Full Compliance Evaluation of Diageo's facility on August 2, 2016, the facility stopped aging Jamaican rum and light whiskey in January, 2011. Large scale aging of spirits in barrels had been reassigned to Diageo's sister facilities in Illinois and Tennessee, however, in coordination with MDE, per Diageo's September 16, 2015 letter regarding aging reactivation and the June 2, 2016 Permit-to Construct application to MDE the facility has resumed large scale aging operations, with a current inventory of approximately 20,000 barrels.

Diageo no longer receives rum from Puerto Rico. The Cream Liqueur processing line (Godiva Chocolate Liqueurs) has been transferred to Plainfield, Illinois. The Perrier bottling system has also been removed. Products that arrive by ship in Seatainers as well as in other containers are pumped into storage tanks. Finished high proof spirits, PABs, and beer products are packaged and stored in the warehouse prior to shipment to the customer. The facility now produces high proof spirits, PABs, and beer products at high volume.

The changes to the facility are reflected in this permit renewal.

GREENHOUSE GAS (GHG) EMISSIONS

Diageo's Relay facility emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from fuel combustion processes (i.e., boilers) contained within the facility premises applicable to Diageo's Relay facility. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. Emission certifications reports for the years 2014, 2015, and 2016, show that Diageo's Relay facility is a not a major source (threshold: 100,000tpy CO₂e) for GHG's (see Table 2 shown below).

The following table summarizes the actual emissions from Diageo's Relay Plant based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion	2014	2015	2016
	factor	tpy CO ₂ e	tpy CO ₂ e	tpy CO ₂ e
Carbon dioxide CO ₂	1	1,146	842	970
Methane CH ₄	25	0.5	0.5	0.5
Nitrous Oxide N ₂ O	300	6	6	5
Total GHG CO _{2eq}		1152.5	848.5	975.5

NESHAP/MACT APPLICABILITY

Diageo's Relay facility is not subject to NESHAP or MACT requirements.

NSPS APPLICABILITY

Diageo's Relay facility is not subject to NSPS requirements

COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS

CAM is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of: (1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; (2) indicating any excursions from these ranges; and (3) responding to the data so that the cause or causes of the excursions are corrected. In order for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard, use a control device to achieve compliance, have pre-control emissions of at least 100% of the major source amount, and must not otherwise be exempt from CAM. Applicability determinations are made on a pollutant-by-pollutant basis for each emissions unit.

Diageo is not subject to CAM because there are no emission units that rely on air pollution control (APC) equipment to achieve compliance.

EMISSION UNIT IDENTIFICATION

Diageo's Relay facility has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	ARMA Registration Number	Emissions Unit Name and Description	Date of Installation
010	005-0146-5-1740	Boiler No. 1 – 25.1 MM BTU/hour Kewanee boiler firing natural gas as the primary fuel with No. 2 fuel oil as back-up Building 52	1986
011	005-0146-5-1739	Boiler No. 2 – 12.6 MM BTU/hour Kewanee boiler firing natural gas as the primary fuel with No. 2 fuel oil as back-up Building 52	1986
020	005-0146-8-0308	Warehouse Aging - Ethanol products are stored in barrels for	1937

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PART 70 OPERATING PERMIT FACT SHEET PERMIT #24-005-0146

Emissions Unit	ARMA Registration	Emissions Unit Name and	Date of
Number	Number	Description	Installation
		aging in Warehouses E, G, and N Note: Warehouses D and H have not been used for barrel aging since the mid-1980's and 2000, respectively. Before Warehouses D and H are used for barrel aging, the Permittee must contact the Department to determine the appropriate permitting process.	
030	(No Reg. No.)	Empty Barrel Storage - Used empty oak barrels are temporarily stored on the grounds outside of Warehouse G and Building 16.	1937
040	005-0146-8-0418	Barrel Filling (Bohnert spirits handling system in Building 16)	2016
	005-0146-9-1525	Proprietary Blending Process	2016
050	(No Reg. No.)	Barrel Emptying - Barrels are transferred from the aging warehouses to Building J where the aged product is recovered for further processing.	1937
060	005-0146-9-1373	Product Filtering - Product is filtered to remove suspended materials. Fourteen (14) filters are currently located through the plant processing area (11 module depth filters and 3 plate/frame filters). Suprapaks can filter up to proofs specified in PTC applications.	<1970, 2009, 2011, 2012
	005-0146-8-0433	One plate and frame filter in Building 50	2017
070	005-0146-8-0333	Bottle Filling - Finished alcohol beverage product is dispensed into containers through seven	1960-2006, 2012

Emissions Unit Number	ARMA Registration Number	Emissions Unit Name and Description	Date of Installation
		automated filling lines in Building 49. – Inactive as of 2017.	
	005-0146-8-0433	Product Packaging - One PAB/ beer packaging system and one Carbo cooler system.	2017
080	(No Reg. No.)	Glues/Adhesives - Hot melt glues and water-based adhesives used to assemble cartons and apply labels to package containers (located Near filling lines).	1937
090	(No Reg. No.)	Printing Inks – Fast drying solvent-based inks are used for product marking of cartons and containers (located near filling lines).	1937
100	(No Reg. No.)	Tank Truck and Container Filling - 26,000 gallon railcars, 6000-gallon tank trucks, 350 gallon totes, and 55 gallon drums are used periodically to transfer beverage alcohol product between buildings or to ship processed products to other facilities (Building/Tank Farm Locations).	<1970
	005-0146-6-3137	Modification of piping lines for the existing rail and truck loading (outside M warehouse and Building 17)	2015

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Emissions Unit	ARMA Registration	Emissions Unit Name and	Date of
Number	Number	Description	Installation
110	005-0146-8-0307	38 Storage Tanks - Building 11,	
		Bulk/finished Product	
		Processing Room	4070
		*Eight 15,900-gallon tanks	<1970
		**Three 10,000-10,400 gallon	1991
		tanks	1001
		**Two 8,400 gallon tanks	1991
		**One 4,000-gallon tank	2006
		**One 1,000-gallon tank	2006
		**Eight 2,100-gallon filter	2012
		column tanks	0040
		**Two 4,100-4,200 gallon tanks	2012
		One 8,100-gallon recovery tank	2012
		** Six 4,300-gallon tank	2013
	005-0146-9-1440	One Carbon filtration system	2013
	005 04 40 0 0400	**O: 45 000 II	2017
	005-0146-8-0433	**Six 15,000-gallon receiving	2017
444	005 0440 0 0005	tanks	
111	005-0146-8-0307	9 Storage Tanks - Warehouse M	
		*Three 11,300 gallon tanks	<1970
		**Three 10,000-10,300 gallon	1991
		tanks	1991
		*One 4,300-gallon tank	1991
		*One 4,300-gallon tank	1991
		**One 1,000-gallon tank	2006
112	005-0146-8-0307	19 Storage Tanks, 50 Shipping	
		Totes and 1 Mixing Tank -	
		Building D, Spring Garden	
		Flavor Facility	
		**One 7,500-gallon tank	1992
		**Four 4,300-4,500 gallon tanks	1992
		*Three 4,300-4,500 gallon tanks	1992
		**Two 2,100-gallon tanks	1992
		**One 1,500-gallon tank	1992
		**One 1,000-gallon tank	1992
		* One 1,000-gallon tank	1992
		* Six portable tanks <600	1992
		gallons	1992

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Emissions Unit	ARMA Registration	Emissions Unit Name and	Date of
Number	Number	Description	Installation
		* 50 portable 350-gallon	1992
		shipping totes	
		* 450-gallon mix tank	2000
113	005-0146-8-0307	19 Product Storage Tanks -	
		Outdoor Tank Farm	
		**One 100,000-gallon tank	2001
		**One 45,000-gallon tank	2001
		**Two 33,000-gallon tanks	2001
		**Three 40,000-gallon tanks	1991
		**Four 10,000-gallon tanks	1991
		**Two 100,000-gallon tanks	2006
		**Two 100,000-gallon tanks	2012
	005-0146-8-0334	**Four 100,000- gallon beverage	2007
		alcohol storage tanks	
114	005-0146-8-0307	41 Product Storage Tanks –	
		Building 50, Bottling Tank	
		Building	
		**Six 15,100-gallon tanks	1990
		**Twenty-one 11,500-gallon	1990
		tanks	
		**One 11,500-gallon tank	1995
		**Four 1,000-gallon tank	1992-2012
		**One 3,500-gallon tank	1995
		**Four<500 gallon tanks	1976
		** Two 4,100-4,300-gallon tanks	1992
	005-0146-8-0433	**Two 11,500-gallon blending	2017
	000 0140 0 0400	tanks	2017
115	005-0146-8-0307	24 Product Storage Tanks –	
		Building 17, Blending	
		Building	
		*Twelve 11,200-gallon tanks	<1970
		**Two 3,300-3,600-gallon tanks	1976
		*One 1,400 gallon-tank	<1970
		*One 1,000 gallon-tank	2012
		*Two 520 gallon-tanks	<1970
		*Three 450-gallon surge tanks	2006
		*One 450-gallon surge tank	1976

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Emissions Unit Number	ARMA Registration Number	Emissions Unit Name and Description	Date of Installation
	005-0146-8-0433	**Two 11,200-gallon ingredient tanks	2017
		The relocation of storage tanks within the premises is exempt from PTC approval if the change of operation does not cause change in the nature of emission or increase of emissions.	
117	005-0146-8-0307	3 Product Storage Tanks – Building B *Three 10,800 – 10,900-gallon tanks	<1970
118	005-0146-8-0307	4 Storage Tanks – Building J, Bulk Regauge *Two 16,500 – 16,600-gallon tanks *Two 230 gallon tanks	All tanks installed <1970
119	005-0146-8-0307	1 Storage Tank – Spirits Tank Farm , Spirits Storage Tank No. 6 **One 500,000-gallon tank equipped with two conservation vents	<1970
120	005-0146-8-0379	One off-spec finished case goods unloading system	2012

Notes for tanks: * Atmospheric vent

AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing,

^{**} Conservation vent

amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

Emission Units 010 and 011 – Two (2) Kewanee Boilers rated at 12. 6 and 25.1 million Btu per hour firing natural gas with No. 2 fuel oil as back-up fuel

Both boilers are located in Building 52 and are used for space heat. The boilers were installed in 1986 and are not subject to the NSPS requirements of 40 CFR 60, Subpart Dc that apply to boilers of 10 million Btu per hour or greater installed after June 9, 1989. The boilers burn natural gas as the primary fuel and No. 2 fuel oil as a back-up fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing. Boilers

that burn fuel oil as back-up in this manner are not subject to the NESHAP requirements of 40 CFR 63, Subpart JJJJJJ for fuel oil fired boilers.

As a preventative maintenance and repair effort for boiler No.1 (25.1 MM BTU/hour), the Permittee has scheduled in 2017 to replace the burner due to its advanced age. The new burner would also be equipped with automated burner controls. The existing boiler tube shows evidence of leaking and pitting and will also be replaced. The replacement of aging parts as general maintenance, and per COMAR 26.11.01.01.B(20), routine maintenance and routine repair are excluded from the definition of term 'modification'. Emissions are expected to decrease due to replacement of aging parts with more efficient parts. Additionally, the replacement of the burner and tubing do not meet the definition of 'reconstructed' as the estimated fixed capital cost of the one-for-one replacement of parts will not exceed 50 percent of the estimated fixed capital costs required to construct an entirely new comparable boiler.

Applicable Standards/Limits

A. Visible Emissions Limitations

COMAR 26.11.09.05A(2) which states, "a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an unconfined form, which is visible to human observers."

<u>Exceptions</u>: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, startup, or occasional cleaning of control equipment if:

- (1) The visible emissions are not greater than 40 percent opacity; and
- (2) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. [COMAR 26.11.09.05A(3)]

Compliance Demonstration

1. The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing on No. 2 fuel oil (not to exceed 48 hours during any calendar year) in the two (2) boilers unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels.

A natural gas curtailment or supply interruption means any period during which the supply of natural gas to the affected facility is halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An

increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or interruption. [40 CFR §63.11237]

- 2. If the Permittee wishes to burn No. 2 fuel oil in any of the two boilers at any other times other than allowed of this permit, the Permittee shall apply for and receives an approval or permit from the Department and comply with the requirements of 40 CFR 63, Subpart JJJJJJ. [40 CFR §63.11195(e)]
- The Permittee shall operate and maintain the boilers in accordance with the operations training manual and preventive maintenance plan. [COMAR 26.11.03.06C]
- 4. To verify no visible emissions when burning #2 fuel oil, an observer is required to perform a visual observation of stack exhaust gases to look for visible emissions for a 12 minute period once for each 168 hours that the boiler burns oil. If a boiler does not burn oil for more than 100 hours in a calendar year, this visible emission observation requirement is waived. [COMAR 26.11.03.06C]
- 5. The permittee shall perform the following, if visible emissions are visible to human observer:
 - a. Inspect combustion control system and the boiler's operations;
 - b. Perform all necessary adjustments and /or repairs to the boiler within 48 hours, so that visible emissions are eliminated;
 - c. Document in writing the results of the inspections;
 - d. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, take additional remedial actions and continue to perform a Method 9 observation once daily for 18 minutes until corrective action has eliminated the visible emissions.

[COMAR 26.11.03.06C]

- 6. The Permittee shall:
 - a. Maintain an operations manual and preventive maintenance plan on site;
 - b. Maintain a record of the maintenance performed that relates to combustion performance; and
 - c. Maintain a log of all visible emissions observations performed for at least five years and make it available to the Department upon request.

[COMAR 26.11.03.06C]

7. The Permittee shall report incidences of excess emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". [COMAR 26.11.03.06C]

Rationale for Periodic Monitoring Strategy

The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing on No. 2 fuel oil (not to exceed 48 hours during any calendar year) in the two (2) boilers. Boilers that burn primarily natural gas in this size range are set up to operate in an automatic mode without oversight of an operator and require minimal preventative maintenance to maintain a level of combustion performance that does not cause visible emissions. If visible emissions occur, it would only occur when burning oil and only when the boiler has not been properly maintained and operated. Weekly observations when burning oil and follow-up maintenance when any visible emissions are observed are sufficient to demonstrate compliance.

B. Control of Sulfur Dioxide Emissions

COMAR 26.11.09.07A(2)(b), which states that "a person may not burn, sell, or make available for sale any distillate fuel with sulfur content by weight by excess of 0.3 percent."

Compliance Demonstration

- 1. The Permittee shall maintain records of fuel supplier certifications for each shipment of fuel received. The fuel supplier certifications shall include the name of the supplier and a certified statement from the supplier that the oil complies with 0.3% of less by weight sulfur content limitation. **[COMAR 26.11.03.06C]**
- The Permittee shall keep annual records of the hours of operation that the boilers burned fuel oil, the amount of fuel oil burned each year, and documentation demonstrating that the fuel oil was burned only as a backup fuel during gas curtailment, gas supply emergency, or periodic testing, as allowed under the operational limitation. [COMAR 26.11.03.06C]
- The Permittee shall report incidences of excess emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". [COMAR 26.11.03.06C]

Rationale for Compliance Demonstration

Fuel supplier certifications are sufficient to demonstrate compliance with applicable fuel sulfur limits.

VOC Emissions Units Including:

Emission Unit 020 – Warehouse Aging

Emission Unit 030 – Empty Barrel Storage

Emission Unit 040 - Barrel Filling

Emission Unit 050 – Barrel Emptying

Emission Unit 060 – Product Filtering

Emission Unit 070 – Bottle Filling (currently inactive) / Product Packaging

Emission Unit 080 - Glues/Adhesives

Emission Unit 090 – Printing Inks

Emission Unit 100 - Tank Truck and Container Filling

Emission Units 110 to 119 – Storage

Emission Unit 120 - Off-spec Finished Case Goods Unloading

Applicable Standards/Limits

Control of Volatile Organic Compounds

- 1. **COMAR 26.11.19.29** Control of Volatile Organic Compounds from Distilled Spirits Facilities
- 2. COMAR 26.11.19.16 Control of Volatile Organic Compounds Equipment leaks

Compliance Demonstration

1. The Permittee shall empty barrels using a pump-operated, bayonet type suction device, or comparable effective device that minimizes VOC evaporative losses when emptying barrels. [COMAR 26.11.19.29C(1)(a)]

Note: This requirement applies to Emission Unit 050 – Barrel Emptying.

2. The Permittee shall drain distilled spirits from filter plates that are located between the barrel unloading and storage tanks to either a recycling tank or to an enclosed collection system. [COMAR 26.11.19.29C(1)(b)]

Note: This requirement does not apply to plate and frame filter associated with beer production operation because "Distilled Spirits" does not include beer in accordance with COMAR 26.11.19.29B(d)(ii).

- The Permittee shall use a gravity and vacuum or pressure filling system or comparable effective system to minimize fugitive emissions from the bottle filling/product packaging operations. [COMAR 26.11.19.29C(1)(c)]
 Note: This requirement applies to Emission Unit 040 – Barrel Filling and
 - e: This requirement applies to Emission Unit 040 Barrel Filling and Emission Unit 070 Bottle Filling/Product Packaging.
- 4. The Permittee, during warmer weather, periodically (at least weekly) wet used barrels that are stored in the outdoors awaiting disposal to reduce potential leakage and fugitive emissions. [COMAR 26.11.19.29C(2)]

Note: This requirement applies to Emission Unit 030 - Empty Barrel Storage.

- 5. The Permittee shall develop, maintain, and implement a good operating practices manual to minimize fugitive VOC emissions from distilled spirits facilities and beer production operation. [COMAR 26.11.19.02] and COMAR 26.11.19.29D]
- 6. The Permittee shall comply the following requirements:
 - a. The Permittee may not load finished products to trucks from ECF Building;
 - b. The Permittee shall convert Tank CA-1 in Rum processing from finished product storage to non-VOC storage;
 - c. The Permittee shall not operate the basement tanks of Building 17, shall use mechanical agitators only, and shall use Tanks 123 and 125 in Building 17 for water storage only; and
 - d. The Permittee shall not blend bulk product in Tanks 118 and 120 in Building 17. [Permit to Construct Nos 055-0146-0307, 0308, and 0309; 8-0333 and 0334; and 9-1373 issued on July 29, 2011]
- 7. The Permittee shall perform a weekly inspection of each emissions unit to verify that the required procedures are being used and shall record the results of the inspections in a logbook. **[COMAR 26.11.03.06C]**.
- 8. To reduce fugitive emission sources, the Permittee shall:
 - a. inspect all empty barrels for mechanical integrity, cracked staves, dished heads, missing hoops and evidence of prior leakage;
 - b. discard failing barrels;
 - c. keep, in a logbook, a record of the number of barrels failing the inspection;
 - d. inspect all barrels as they are filled;
 - e. repair or empty and discard any leaking barrel identified;
 - f. place non-leaking barrels on pallets that are designed to provide stability to the barrels during transfer to and from the warehouse storage areas; and
 - g. keep a record of inspections in a logbook.

[COMAR 26.11.19.29D]

- The Permittee shall:
 - a. Visually inspect all components on the premises for leaks at least once each calendar month:
 - b. Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired;

- c. Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours;
- d. Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part; and
- e. Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced.

[COMAR 26.11.19.16C]

- 10. Leaking components that cannot be repaired as required because they are inaccessible, or that cannot be repaired during operation of an installation, shall be identified in a log and included in the facility's maintenance schedule for repair during the next outage of the installation. [COMAR 26.11.19.16D]
- 11. The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:
 - a. Records of monthly fugitive emissions and supporting annual estimates of emissions for all emission units, including but not limiting to the following units:
 - (i) the Bohnert spirits handling system in Building 16;
 - (ii) jumper connections blown out with each connection change required by flow transfer panels;
 - (iii) proprietary blending process;
 - (iv) loading station outside of M Warehouse and Building 17;
 - (v) carbon filtration system; and
 - (vi) SUPRApak filters.

[Permits to Construct Nos. 005-0146-8-0418 issued on September 20, 2016, 005-0146-9-1525 issued on September 2, 2016, 005-0146-6-3137 issued on December 11, 2015, 005-0146-6-3137 issued on December 11, 2015, 005-0146-8-0307 and 005-0146-9-1373 issued on September 12, 2012]

- b. The current, most recently revised GOP manual designed to minimize fugitive emissions of VOC as required by COMAR 26.11.19.29D.
- 12. The Permittee shall maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence. [COMAR 26.11.19.16C(6)]

 The Permittee shall report incidences of excess emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". [COMAR 26.11.03.06C]

Rationale for Compliance Demonstration

The required good working practices listed above are very effective to reduce fugitive VOC emissions from each operation. The implementation of the leak inspection, detection and correction GOP manual will minimize excess emissions. The record keeping and reporting requirements are sufficient to document the compliance status.

COMPLIANCE SCHEDULE

The Diageo facility is currently in compliance with all applicable air quality regulations.

TITLE IV - ACID RAIN

The Diageo facility is not subject to Title IV requirements.

<u>TITLE VI – OZONE DEPLETING SUBSTANCES</u>

The Diageo facility is not subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

The Diageo facility is not subject to the requirements of Section 112(r).

PERMIT SHIELD

Diageo requested that a permit shield be expressly included in the Permittee's Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 2 Stationary internal combustion engines (diesel fire pumps) with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving:

The diesel pump engines are subject to the following requirements:

- (A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (C) Exceptions:
 - (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

- (D) COMAR 26.11.36.03A(1), which establishes that the Permittee may not operate an emergency generator except for emergencies, testing and maintenance purposes.
- (E) COMAR 26.11.36.03A(5), which establishes that the Permittee may not operate an emergency generator for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary.
- (F) 40 CFR 63, Subpart ZZZZ which states that the Permittee must:
 - (i) Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
 - (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;
 - (iv) operate and maintain the engine and keep records as specified in Subpart ZZZZ; and
 - (v) keep records of the hours of operation of the engine as recorded through a non-resettable hour meter.
- (2) Space heaters utilizing direct heat transfer and used solely for comfort heat;
- Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (4) No. <u>~1000</u> Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The degreasers are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds

(VOC) from cold degreasing operations by meeting the following requirements:

- (a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;
- (b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;
- (c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

- (a) Monthly records of the total VOC degreasing materials used; and
- (b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.
- (5) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (7) Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;

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(8)	Containe	rs, reservoirs, or tanks used exclusively for:		
	(a) <u>√</u>	Storage of butane, propane, or liquefied petroleum, or natural gas;		
	(b) No	30 Storage of lubricating oils;		
	(c) No	Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater- Two propylene Glycol storage areas in D Warehouse and Bldg 17.		
	(d) No	Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel- Two no. 2 oil tanks and two diesel fuel tanks.		
	(e) No	Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;		
	(f) No. <u>2</u>	The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less- Number refers to storage locations (D warehouse and ECF maintenance);		
(9)	<u> </u>	First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;		
(10)	<u> </u>	Potable water treatment equipment, not including air stripping equipment;		
(11)	<u> </u>	Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;		
(12)	<u> </u>	Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;		
(13)	\checkmark	Laboratory fume hoods and vents;		

For the following, attach additional pages as necessary:

(14)	any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):		
	No. 1 Spring Gardens Vacuum Batch Still (446 gal)		
	No. 1 Brewery system with annual beer production of 1,400 barrels		

STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contain state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

The Diageo facility is subject to the following State-only enforceable requirements:

- 1. Applicable Regulations:
 - (A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.
 - (B) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T BACT) to control emissions of toxic air pollutants.
 - (C) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health
- 2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
- (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.